

→ 5084511



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D6101-015
Job Sheet 178830



Part No: D6101-015

Job Qty: 20 ea

Part Name: Saddle Billet



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/8/18

Job Tracking No:

Due Date: 6/29/18

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV B IPP RevA: New issue DD verified by:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	20 pcs		6/29/18	0.00	0.00	Purchasing		6/18/06/26
110	Packaging	20 pcs		6/29/18	0.00	0.00	Packaging2		6/18/06/26
120	QC	20 pcs		6/29/18	0.00	0.00	QC18		6/18/06/26
130	Packaging	20 pcs		6/29/18	0.00	0.00	Packaging3-2		6/18/06/26
140	QC21-SA	20 Ea		6/29/18	0.00	0.00	QC21		21 JUN 29 2018

Part Op 100 - Issue P/O: 40143 b) 9.450" x 6.250" x 2.50" thick (+0.030 / -0.000) d) Grain direction along 9.450"
Descriptions: length

110 - Ensure material certification is attached

120 - Ensure Material certification comply to Dwg D6101

130 - LOCATION: MAT045

DAS
13
9-89

JUN 08 2018

x20

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-015P	Aluminum Billet	20 pcs (1 ea)	100-Purchasing	5084508

Job Allocations

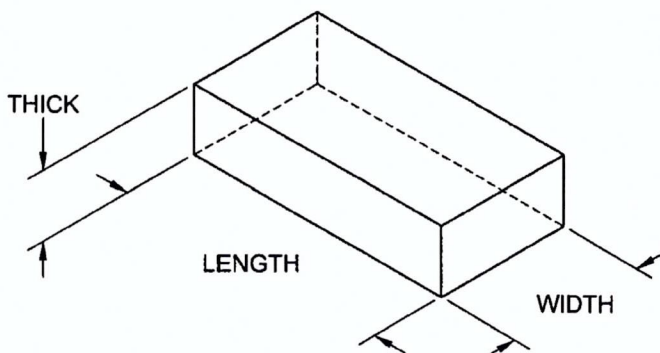
Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6101-015P	20	0	0

Part Specifications

Specifications could not be found.

Plex 6/8/18 7:49 AM dart.lavoie.chantal

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

△ **B** ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
<u>D6101-015</u>	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

△ **B**

RELEASED
09/07/15/WB

B	ADDED D6101-015-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. D6101	
MFG. APPR.	<i>[Signature]</i>	REV. B SHEET 1 OF 1	
APPROVED	<i>[Signature]</i>	TITLE SADDLE BILLET, 7075	
DE APPR.	<i>[Signature]</i>	SCALE NTS	
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040143**

Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: PO040143

PO Date: 6/8/18

Due Date: 6/29/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	D6101-015P		Aluminum Billet As per Dwg D6101 Rev. B	Firmed	6/29/18	20 pcs	0 pcs	20 pcs	\$52.00/pcs	\$1,040.00

Line Item Note w/o 178830

Grand Total: \$1,040.00

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENT

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Plex 6/8/18 11:13 AM dart.lavoie.chantal

**Castle Metals**[®]

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3630290

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 22-JUN-18	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 3630290-2	

Shipment Details					Final Destination Branch - TOR		
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Order No	Line No	Item No	Description	
5166850	1	752241.MO	2.5000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT RECTANGLE TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 9.45")) X 9.45 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 9.45")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12	
Purchase Order No		Part Number	Ordered Qty	Invoice Qty
40143		YOUR ITEM NUMBER: D6101-015	20.00 PCS	20.00 PCS

Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
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Delivery No. 121888529		Mill/Source CONSTELLIUM ROLLED PRODUCTS		Heat Number 		Mech Id	PCS 20	Width (IN)	Length (IN)	Shipped Qty(LBS) 305.4241
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We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned.

Date Printed: 22-JUN-2018 02:58:02 PM

26646437



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

for credit.

Reviewed by Authorized Castle Metals Representative:

JUN 22 2018



Date:

Name:

SUE KALOUS

Revised Certification

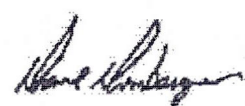

CERTIFIED TEST REPORT
 Constellium Rolled Products
 Ravenswood, LLC

S H I P T O

A M CASTLE & COMPANY
 4175 ROYAL DRIVE
 KENNESAW GA
 30144
 US

S O L D T O

A M CASTLE
 1420 KENSINGTON ROAD, SUITE 220
 OAK BROOK IL
 60523
 US

A M CASTLE		110659346		4776		INCLUSION		Serial:20180510-0110659346		Pg 1 of 3	
CUSTOMER PURCHASE ORDER NO. & ITEM 455651						Constellium ORDER NO. 234774					
ALLOY 7075	CLAD	TEMPER T7351	GAUGE 2.50000 in 63.50 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm		CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 659 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager				
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078J											
PART NUMBER 752241		B/L NUMBER 99378		DATE SHIPPED 05/10/2018							
WT. SHIPPED 8940.000 LB		NO. OF PIECES 000005		GOVT. CONTRACT NO.							

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.12" DEADZONE Class A
 AMS QQ-A-250/12A
 AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
 ASTM B209-14
 B36-7085B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
 CMMP025 REV U
 CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
 DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
 GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
 MMS 159T
 PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001778810	1,790.000	811.930	9422779	01		
1001778810	1,790.000	811.930	9422779	02		
1001778812	1,790.000	811.930	9422779	04		
1001778815	1,785.000	809.662	9418218	03		
1001778815	1,785.000	809.662	9418218	04		

Lot: 9422779 (See test results below)

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	71.5	72.2	60.6	61.2	11.5	11.5	

Revised Certification

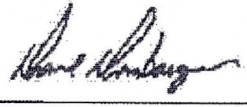

CERTIFIED TEST REPORT
 Constellium Rolled Products
 Ravenswood, LLC

S H I P T O

A M CASTLE & COMPANY
 4175 ROYAL DRIVE
 KENNESAW GA
 30144
 US

S O L D T O

A M CASTLE
 1420 KENSINGTON ROAD, SUITE 220
 OAK BROOK IL
 60523
 US

A M CASTLE		110659346		4776		INCLUSION		Serial:20180510-0110659346		Pg 2 of 3	
CUSTOMER PURCHASE ORDER NO. & ITEM 455651						Constellium ORDER NO. 234774			CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager		
ALLOY 7075	CLAD	TEMPER T7351	GAUGE 2.50000 in 63.50 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm						
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078J											
PART NUMBER 752241			B/L NUMBER 99378		DATE SHIPPED 05/10/2018						
WT. SHIPPED 8940.000 LB		NO. OF PIECES 000005		GOVT. CONTRACT NO.							

Tensile - Room Temperature (SI)								
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	493	498	418	422	11.5	11.5	

Conductivity	% IACS MIN 40.7 MAX 41.5 % MS/M MIN 23.6 MAX 24.1							
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Chemistry (Actual)									
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.07	0.15	1.46	0.04	2.60	0.21	5.63	0.04	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER									
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All material contained in this lot was cast and manufactured in the USA

Lot: 9418218 (See test results below)

Tensile - Room Temperature (US)

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	74.2	74.7	63.6	63.8	12.0	12.0	

Revised Certification



CERTIFIED TEST REPORT Constellium Rolled Products Ravenswood, LLC

SHIP TO

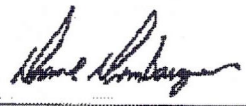
A M CASTLE & COMPANY

4175 ROYAL DRIVE
KENNESAW GA
30144
US

SOLD TO

A M CASTLE

1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110659346		4776		INCLUSION		Serial:20160510-0110659346		Pg 3of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 455651						Constellium ORDER NO. 234774					
ALLOY 7075	CLAD	TEMPER T7351	GAUGE 2.5000 in 63.50 mm	WIDTH 48.5000 in 1,232 mm	LENGTH 144.5000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078J											
PART NUMBER 752241		B/L NUMBER 99378		DATE SHIPPED 05/10/2018							
WT. SHIPPED 8940.000 LB		NO. OF PIECES 000005		GOVT. CONTRACT NO.							
Tensile - Room Temperature (SI)											
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	512	515	439	440	12.0	12.0				
Conductivity % IACS MIN 39.4 MAX 40.4 % MS/M MIN 22.9 MAX 23.4											
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.07	0.13	1.44	0.02	2.61	0.20	5.59	0.03	0.01		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
QUALITY TEXTS: AMC CA-15413B R 6		Revised Certification: "Also conforms with CMMP 025 Rev V" - customer request. "Revision certifies the material properties and condition as it originally left the mill, not as of date of revision".									
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSPARK WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557 DUNS Number: 090570149; CAGE Code: 1YW18 Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"											
P-860-155D REVISED: 01 2018											



05566-1

Pat m... 5/16/18

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 06101-015
 DATE: 18/06/26

PO / BATCH NO.: P0040143 / S054511

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 20
 QUANTITY INSPECTED: 20
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.50"
 THICKNESS RECEIVED: 2.50"
 SHEET SIZE ORDERED:
 SHEET SIZE RECEIVED:

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	☒ N	
CORRECT FINISH	☒ Y	N	
CORROSION	Y	☒ N	
CORRECT GRAIN DIRECTION	☒ Y	N	
CORRECT MATERIAL PER M-DRAWING	☒ Y	N	ASTM B209
CORRECT THICKNESS	☒ Y	N	
PHOTO REQUIRED	Y	☒ N	
CORRECT REF # TO LINK CERT	☒ Y	N	HT: 9422779
CORRECT MATERIAL IDENTIFICATION	☒ Y	N	
CORRECT M# ON THE MATERIAL	☒ Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT RD</u> DATE: <u>18/06/26</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in